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ABSTRACT

This discussion guide on the conference theme, Library and Information Services for Increasing International Understanding and Cooperation, reviews changes in information technology, the international politics of information, and the U.S. role as both technological leader and proponent of the "free flow of information" which call for a thorough reevaluation of U.S. foreign policies in information, and outlines five related issues for discussion by delegates. Background information is provided in each of the discussion-topic sections, which in turn are subheaded with sample discussion topics. The five issues address (1) the need of Americans for information from abroad, the need of other peoples for new types of U.S. information, and how these needs can be met; (2) the best way to develop comprehensive and well-articulated policies and procedures for sharing U.S. information; (3) the balance between the goal of broader information flow and the rights of private corporations and nation-states to control information they generate; (4) the desirability of reducing the underlying international imbalance in the ability to create and to disseminate information; and (5) how the U.S. can help developing countries meet their information and communication needs. A brief summary statement and an abstract in Spanish are included. (SW)

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LIBRARY AND INFORMATION SERVICES FOR
INCREASING INTERNATIONAL UNDERSTANDING
AND COOPERATION

A Discussion Guide

by

Jonathan F. Gunter

Prepared for the White House Conference on
Library and Information Services

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PREFACE

This discussion guide is intended as an informative and provocative summary of some of the many issues present in this theme. The guide was not planned to be exhaustive but to raise questions and stimulate discussion.

The guide has been prepared by an individual whose knowledge of the subject area is respected by colleagues and members of the community. In writing the guide, the author drew on the issues and resolutions raised in pre-Conference activities, documented in the many pre-Conference publications issued by the White House Conference staff. The author also drew on his own experience and background. The views and opinions expressed in the guide do not necessarily reflect the official position or policy of either the White House Conference staff or the National Commission on Libraries and Information Science (NCLIS).

The purpose of the guide is not to dictate the issues to be discussed but rather to provide some general background and to crystallize some of the major questions delegates may wish to address at the Conference. Final responsibility for deciding what issues are to be discussed and what resolutions are to be passed rests with you, the delegate.

Marilyn K. Gell
Director
White House Conference
on Library and Information
Services
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CONTENTS

	Page
Abstract	1
Extracto en Espanol	3
Introduction	7
Issue #1: In a pluralistic world, do Americans need more information from abroad? Do other peoples need new types of U.S. Information? Is so, how can these needs be met?	11
Issue #1-A: Should the American mass media carry more foreign information?	11
Issue #1-B: Can America's libraries do more to stimulate international information exchange?	12
Issue #1-C: On what terms should U.S. information services such as databases and indexing and abstracting be made available to foreign users?	13
Issue #2: How can comprehensive and well-articulated policies and procedures for sharing U.S. information best be developed?	15
Issue #3: As technology advances, how can the goal of broader information flow be balanced with the rights of private corporations and nation-states to control the information they generate?	17
Issue #4: Why should the underlying international imbalance in the ability to create and to disseminate information be reduced?	19
Issue #5: How can the United States help the developing countries meet their information and communication needs?	23
Summary	29

ABSTRACT

A long and fruitful history of cooperation exists in the international information arena. Many nations benefit from shared information on weather, health, demographics, economics, and results of scientific research. New technologies such as satellite transmission are important in sharing information across national borders. Nations are realizing the potential economic and political power inherent in effective use of information resources.

A number of issues must be addressed, however, if this cooperation is to continue and expand in the changing international information environment.

- 1) In a pluralistic world, do Americans need more information from abroad? Do other countries need new types of U.S. information? If so, how can these needs be met?
 - a) Should the American mass media carry more foreign information which might perhaps provide a different perspective on international affairs?
 - b) Can America's libraries do more to serve U.S. needs for international information?
 - c) On what terms should U.S. information services such as databases or indexing and abstracting services be made available to foreign users?
- 2) How can comprehensive and well-articulated policies and procedures for sharing U.S. information best be developed?
- 3) As technology advances, how can the goal of broader information flows be balanced with the rights of private corporations and nation-states to control the information they generate?
- 4) Why should the underlying international imbalance in the ability to create and disseminate information be reduced?

SERVICIOS DE INFORMACION Y BIBLIOTECAS
PARA MEJORAR LA COOPERACION INTERNACIONAL

La historia de la cooperacion internacional en el campo de la informacion es bien conocida. Los beneficios que disfrutaban los paises que comparten entre si informacion sobre el clima, la salud, informacion demografica, asuntos economicos y avances cientificos se refleja en el avance cultural de cada nacion. Ademas de conferencias internacionales, revistas, servicios de telegramas y correos, la tecnologia moderna ha contribuido con sistemas electronicos de comunicacion tales como el uso de satelites para transmitir informacion a travez de las fronteras.

A medida que mayor cantidad de informacion puede ser adquirida usando las nuevas tecnologias y servicios de informacion publica, las diferentes naciones se han percatado de las ventajas economicas y politicas que se pueden obtener con el uso correcto de las fuentes de informacion. Estas ventajas por el intercambio de informacion tecnologica y avances sociales, y el mejor acuerdo entre naciones pueden ser disputados por mucho tiempo si es que reglamentacion acerca del uso de informacion es establecida. Varios puntos tienen que ser estudiados y resueltos para que la cooperacion en el campo de la informacion internacional continue y progrese; por ejemplo:

- 1) En un mundo tan diverso como el nuestro, es para el beneficio de los EEUU usar informacion proveniente de otras naciones? Necesitan otros paises usar los medios modernos de informacion que existen en los EEUU? Y si la respuesta a estas preguntas es positiva como se podrian satisfacer estas necesidades?
 - a) Deberian los servicios de informacion publica en los EEUU incluir mas datos de informacion proveniente del exterior que quizas cambiaria la opinion publica con respecto a politica internacional?
 - b) Pueden las bibliotecas del pais proveer mas informacion acerca de politica internacional a la cultura estadounidense?
 - c) Bajo cuales condiciones servicios modernos estadounidenses de informacion asi como "database", "indexing and abstracting" serian puestos a la disposicion de otras naciones? En que momento seria necesario establecer regulaciones internacionales?
- 2) Cual deberia ser la estructura para formular reglamentacion que sea comprensible y metodos de operacion para compartir informacion a travez de fronteras?
- 3) A medida que la tecnologia avanza como deberia calibrarse la meta de mayor informacion y facilidad de obtener, la misma, comparada contra el derecho de la industria privada y gobiernos de proteger ciertas clases de informacion?
- 4) Puede ser reducida la falta de informacion completa que proviene de paises subdesarrollados?

LIBRARY AND INFORMATION SERVICES FOR
INCREASING INTERNATIONAL UNDERSTANDING
AND COOPERATION

INTRODUCTION

Although international information exchange can certainly enhance understanding, it can also impede understanding. A number of international information issues (including barriers to the flow of news, film and television, and restrictions on the flow of data) threaten to divide Americans not only from the Soviet Bloc and the Third World but even from other western countries. This discussion guide surveys both the promise and the peril inherent in the expansion of international information exchange.

There are three major reasons why information issues are becoming more important to the United States than ever before. First, the rapidly advancing technology of information is increasing capabilities even as it decreases costs. Second, the international politics of information are becoming more intense and difficult as information's role in world economies and society grows. Third, the U.S. role as both technological leader and chief proponent of the "free flow of information" has made U.S. information initiatives particularly controversial. Only after understanding the broad context of such issues should specific measures be developed for using U.S. libraries and information services to increase international understanding.

The Debate on the World "Information Order"

At the close of World War II, American publishers, press agencies, filmmakers, and broadcasters offered their products on an unprecedented scale to a largely receptive world. With Western Europe's economy (and media) still rebuilding and with the colonial empires still awaiting independence, the United States found few competitors for its products in international media markets and few quarrels (outside the Soviet Bloc) with its concept of "free flow."

In revulsion over Nazi propaganda excesses and fearful for the future of "closed societies" in Eastern Europe, most countries in the West and the developing world sympathized with formulations of "free flow" contained in the founding documents of the United Nations (U.N.). In the U.N. Charter, in the United Nations Educational, Scientific and Cultural Organization (UNESCO) Constitution, and perhaps most poignantly in article 19 of the Universal Declaration of Human Rights, U.S. values are reflected:

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions . . . and to seek, receive and impart information and ideas through any media and regardless of frontiers.

In these early days, opposition to "free flow" came largely from the Soviet bloc, which, for example, abstained from the U.N. vote on the declaration above. These countries steadfastly maintained that preservation of national culture, of public morals, and public order against foreign information was a matter of national sovereignty--a term that is, of course, interpreted far more narrowly in the United States.

In recent years, observers in the United States have been disturbed to see perspectives similarly critical of "free flow" emerging in countries that have been traditionally friendly to the United States. Countries as diverse as Canada, France,

Brazil, India, and Nigeria have joined traditional U.S. adversaries in questioning:

- the threat to "national sovereignty" implied by U.S. dominance in computers, remote sensing, and communications technology,
- the "cultural imperialism" reflected by U.S. dominance in world export markets by publications, films, and television, and
- the "bias" of American news agencies Associated Press (AP) and United Press International (UPI), which allegedly dominate world news flow.

Since a range of different U.S. private institutions are active in these areas, Americans have tended to view these information issues separately. Critics tend to see them as parts of a single phenomenon deriving from (and also reinforcing) the existing world economic order. At the 1976 summit meeting of nonaligned countries, 84 participating heads of state declared that "a new international order in the fields of information and mass communication is as vital as a new international economic order."

The criticism of "free flow" had begun to intensify in the early 1970's, as the nonaligned countries (often using UNESCO as a forum) argued that the human rights guaranteed in article 19 of the Universal Declaration of Human Rights would remain empty rhetoric until the resources and capabilities needed for operating modern media were more evenly diffused throughout the world. A purely "free flow" of information was inevitably a "one-way flow" from the rich countries (primarily the United States) to the poor countries.

In this one-way flow, certain facts, perspectives, and philosophies were guaranteed to be overrepresented--namely, those that would be selected by managers and editors in major developed-country institutions. Other facts, perspectives, and philosophies (namely, those of the developing countries) would be systematically underrepresented. It has been argued that such a situation does not suit the needs of a pluralistic world, wherein every country must have its own voice in the international flow of information. From this perspective the best future course for U.S. information services would be to use more foreign information (which would build markets for foreign information) and to produce less information relative to the rest of the world.

News

Quite understandably the type of information that initially commanded the attention of Third World governments was news. All governments are preoccupied with the content of news because of its direct impact on their standing in national and world opinion. Governments that are beset with internal turmoil and that must build a national identity among feuding tribal or ethnic groups may resent the hard-hitting western approach to news reporting. Governments that lack the tradition of independent news media (or that wish to hide inefficiency, corruption, or violations of human rights) may have additional motives to attack U.S. journalism.

Whatever the motive, the result has been a frontal attack on the legitimacy of the international news agencies--particularly the American AP. Charges have ranged from insensitivity to Third World conditions to conscious manipulation of news and collaboration with the Central Intelligence Agency. Moderate American observers concede that Third World voices in the flow of international news are needed, but they doubt whether the government-run news agencies that are being created in the Third World can function as journalistic (vs. propagandistic) operations.

Culture

The debate quickly spread to the other major type of mass media, i.e., entertainment and cultural expression. Particularly with the spread of television, the dominance of U.S. entertainment media came to be lamented by many different countries, including some western nations. Many countries have set limits on the amount of television programming that may be imported. Canadian tax laws aimed at less controversial media caused local editions of Time and Reader's Digest respectively to cease publication and to sell out to Canadian interests.

Discussions over "cultural imperialism" (more so than news) have considered the economics of media. With its huge internal market, U.S. media producers easily attract the audiences necessary to cover the high cost of quality books, magazines, film, and television. As a result, U.S. media products can be offered internationally at very low prices. The United States also enjoys a language advantage over countries that speak less widely-used tongues. Of course the mainstream U.S. argument over the popularity of its media products--the worldwide appeal of our open, dynamic and culturally pluralistic society--must also be given credit.

Whatever the causes, most countries have continued to purchase U.S. media products. Few could afford to produce all their own materials or dare to shut down their transmitters during broadcast hours. Hence, the pattern has been one of continuing to import, presumably to the delight of audiences and advertisers. Complaints from intellectuals about the erosion of national cultures and the shaping of national media systems by outside economic forces persist. Still, a number of countries--most dramatically Canada--have erected tariff barriers and have otherwise sought to build local media industries.

Data

A newer aspect of the debate has focused even more explicitly on economic issues and has given rise to even stronger attempts to regulate outside economic forces. The subject in question is computer communications via "transborder data flow." Unlike the mass media of journalism and entertainment, data flow is generated by extremely costly media that link major institutions whose motives are largely economic. Governments in Western Europe and elsewhere seem more committed, philosophically, to the free flow of news and political commentary than to the free flow of data.

Although they tend to be discussed as one phenomenon, there are two basic types of data flow. The first involves organizational data generated for operations and management purposes (banking transactions, credit files, production schedules, inventories, and shipping). Sometimes such data are generated and transmitted

within different branches of a single multinational corporation. Other times, data generated by a company in one country are transmitted to foreign contractors for processing and storage. Although the initial focus of concern was protection of the privacy of personal information transmitted overseas, broader economic and political concerns have since been voiced by Canadian and Western European governments. Many of the major multinational corporations involved in data flow are, of course, American. Many of the international data processors are also American. Thus, the fears of smaller western countries about data flow are largely reflections of broader fears of U.S. economic and political dominance.

The restrictions that threaten corporate data flow could also affect a second type of flow of greater interest to the library and information service community. This second type of data flow involves the automated indexing and search services that provide access to published scientific and technical information (STI). These services are increasingly important to the success of research and development efforts and thus to economic productivity. Currently, the United States has a virtual international monopoly on such services; the most prominent of these are Lockheed's DIALOG and System Development Corp.'s ORBIT, each of which provides instant access to a large number of specialized data bases.

Third World leaders have called for preferential access to American STI in order to accelerate their development. Many questions about cost and terms of access to existing U.S. information services have been raised by Western Europeans. The Western European Network (EURONET) is planning to begin operations this year. With funding from the European Economic Community, EURONET will provide public access by telephone lines to major European and U.S. scientific and technical databases.

We can conclude this whirlwind tour of the information debate by noting some emerging ironies. While the developing countries complain that too much U.S. news copy reaches their media, they clamor for more American STI. At the same time, while Americans insist on a free flow of news, we have begun to have second thoughts about past policies favoring free flow of U.S. publicly funded STI. These policies may have helped adversaries to obtain strategic technologies and economic competitors to advance vis-a-vis U.S. industry. As a result, American spokesmen have proposed a code of conduct for STI exchange that would ensure reciprocity. On the other hand, the proposals emanating from UNESCO and the Third World for a code of conduct for journalists are strenuously resisted by the United States.

There are explanations for these seeming contradictions. They derive from the differing philosophical values, constitutional/legal provisions, and institutional arrangements attached to different types of information. They mean that the question of international information flow is much more complicated than it was 30 years ago when the "free flow" doctrine was first enshrined in the U.N. system. Then there were 50 independent nations in the world compared with 150 today. Then there were only radios, newspapers, and books. Now there are also television, satellites, and computers. These changes call for a thorough reevaluation of U.S. foreign policies in information.

Issue #1: In a pluralistic world, do Americans need more information from abroad? Do other peoples need new types of U.S. information? If so, how can these needs be met?

In recent years, other nations have been taking on larger roles in world affairs. Japan and the European community are increasingly influential. The developing countries--about which we know the least--are increasingly assertive and increasingly organized. Through the Non-Aligned Movement and through their majority in the U.N. system, the Third World countries have gained influence in world politics. Several individual countries in this group are assuming critical political and economic roles in their own right--e.g., Iran, Nigeria, Korea, India, Brazil, and Mexico.

As the role of the United States changes in response to these events (and as Congress assumes a greater role in foreign policy), an internationally informed U.S. public becomes crucial to our effective functioning. However, various polls suggest that the interest of Americans in foreign affairs has declined in the aftermath of the Viet Nam war. Enrollments of U.S. students in foreign-language and foreign-area studies have been declining. These signs do not augur well for the future market of foreign news and cultural materials.

Issue #1-A: Should the American Mass Media Carry More Foreign Information?

As the world's major producer of information, the United States tends to be more of an exporter than an importer. Circulations of foreign newspapers and periodicals in the United States are very small. According to UNESCO figures, the American television system is the second most closed to foreign programming in the world; first place goes to mainland China. Most of our foreign news is generated by American organizations such as AP, UPI, the television networks, and the few U.S. newspapers that still maintain foreign correspondents. (Although these organizations often employ foreign reporters overseas, U.S. news values do predominate insofar as U.S. editors package and select the news.)

These mass media have a key "agenda-setting" influence on our view of the world: what countries, what issues, and what perspectives are important? They may exercise a major influence on the demand for other types of more in-depth information. According to the first amendment to the Constitution, this agenda is to be set largely outside the realm of public policy. Therefore, there are very

real limits on the degree to which the media can (or should be) induced to carry more foreign information . There are some possible responses that the delegates might discuss and embody in resolutions:

- Governmental, foundation, and corporate funding for acquisition, translation, and airing of quality foreign cultural materials on public and commercial television should be increased.
- Wire services, commercial networks, and American newspapers should be reminded of their leading role in informing the American people of developments beyond our shores.
- Under its new presidential mandate to inform the American people of foreign ideas and cultures, the U.S. International Communication Agency should facilitate contact between American media leaders and their counterparts in other countries with a mind toward heightened American media subscription, review, and incorporation of more foreign materials into products.

Issue #1-B: Can America's Libraries do more to stimulate international information exchange?

While the influence of public policy on the private mass media may be circumscribed, public deliberation about the function of libraries suffers fewer constraints. Public and university libraries are the key institutions that offer the American public access to a wide range of in-depth information. With high levels of public funding, most libraries can be held accountable in relation to public goals. Of course, there are difficult questions surrounding the appropriate balance among local, State, and Federal governments and university administrations in defining such goals. Nonetheless, most would agree that public libraries can play a great role in providing opportunities for Americans to develop awareness of foreign countries and of their importance to us. University libraries can keep students and researchers up to date on foreign developments in their specialized fields.

Much can be accomplished through the traditional function of acquiring periodicals and books; however, library budgets for acquisitions of foreign publications would have to be increased. Agreements regarding exchange of publications should be pursued bilaterally and through international organizations. Vigorous support from the library community and the public for such agreements and for

U.S. participation in international efforts to standardize bibliographic information can contribute much to this goal. Renewed attention should also be paid to tariff and copyright questions, with a view toward stimulating the maximum exchange that is compatible with intellectual property rights and national policies.

When we think of the longer-term future of America's libraries, much greater challenges present themselves. Given the deteriorating economics of traditional publishing and the opportunities represented by new technology, libraries will have to undertake revolutionary changes in their operations during the next 25 years if they are to maintain (much less expand) their major role in American society. The new technology, with its tendency to reduce dramatically the space and time constraints on information flow, would seem ideally suited to an effort to increase the availability of foreign information to the American people. However, the same technology has created a number of international political problems, about which the library community must be well informed, and on which positions should be developed. In response to these questions, the delegates may wish to discuss and to develop White House Conference resolutions along the following lines:

- Governmental, foundation, and corporate funding for the acquisition of foreign materials and bibliographic information should be increased.
- Better mechanisms should be developed to share throughout America's public and university library systems the benefits of special centers of expertise (e.g., the Library of Congress' impressive overseas acquisition program and its Network Development Office).
- An ongoing mechanism within the library community is needed, in order to consider how future technological changes can enhance the effort to make more foreign information available to American library patrons.

Issue #1-C: On What Terms Should U.S. Information Services Such as Databases and Indexing and Abstracting Be Made Available to Foreign Users?

Although the situation may change, most public issues relating to information services are now quite distinct from most library issues. Information services tend to provide much more specialized information to smaller audiences who pay directly for the services they receive. These

services involve a mix of private and public institutions. They tend to make use of new technology for compiling, cataloging, abstracting, and searching. Finally, America enjoys a worldwide lead in this field, which has provoked reactions from many countries.

Countries that can pay for U.S. information services use them enthusiastically. This response has heightened concern in Congress that potential U.S. adversaries may accelerate their acquisition of strategic technology through use of American information services. There is also a fear that other industrial countries may gain economic competitive advantages from U.S. information services that are not reciprocated (although a functioning EURONET could reduce this problem). There is also apprehension that major middle-income countries, such as Brazil, Mexico, and Korea, may be able to adopt advanced U.S. production processes and become serious competitors due to their lower wage rates. The Agency for International Development (AID) and the National Science Foundation (NSF) have conducted STI programs in less advanced developing countries, although not at a high level of funding. Their experiences indicate that major programs in STI can only have broad effects when they are heavily screened to match development needs, which are increasingly perceived to be categorically different from those of larger or more industrialized countries.

Thus, it is increasingly apparent that the information needs of other countries vary dramatically. U.S. enthusiasm for sharing information with other countries also varies according to our political and economic relations with the country in question. A sophisticated and articulated set of policies and procedures is needed.

Issue #2: How can comprehensive and well-articulated policies and procedures for sharing U.S. information best be developed?

The Federal role in this field is fragmented and complex. The U.S. Government funds or operates many of the major information services, e.g., the National Technical Information Service, and the Smithsonian Scientific Information Exchange. The U.S. Government funds much of the research that is abstracted and cataloged by the services. Through various agencies and quasi-Governmental bodies, the U.S. Government participates in many international information programs; some of them are inter-Governmental, and some are non-Governmental. There is also a dynamic and growing private information industry. All the various Governmental, quasi-Governmental, and private actors tend to operate on their own. An NSF office attempted to coordinate these activities but has recently reduced its role. This situation contrasts with that of most other nations in the world that speak, through their governments, with relatively unified voices.

Clearly the United States must devise some ongoing mechanisms for developing and maintaining coherent procedures and policies for international information flow. Although sometimes a weakness, the lack of coordinated policies and procedures also reflects the strength, dynamism, and diversity of the U.S. information sector. In order to preserve and build on this strength, a broad forum incorporating all interested institutions might be a more effective approach to policymaking than a centralized Federal initiative.

There are two basic levels of concern in this area that must be addressed. First, a set of policies must be developed that reconciles the basic American belief in freedom of information with the requirements of U.S. national security, broad U.S. economic interests, and specific U.S. information industry interests. Such policies, concerned mostly with data flow and technological development, may have to be distinguished from the philosophical and political commitments of the Nation to a free flow of news and cultural materials.

At the operating level, procedures need to be developed for coordinating U.S. participation in the many international information programs. Special measures should be investigated that might encourage reciprocal trade with other major information-producing countries. Steps should also be taken to provide foreign information seekers

(especially those from the developing countries) with a central source of orientation and guidance. In discussing these topics, Conference delegates may develop resolutions along the following lines:

- The library and information service community should organize an ongoing forum to deliberate international information policy issues. This forum should allow for the voicing and consideration of views from private and public and profit and nonprofit institutions.
- The library and information service community should also devise mechanisms for coordinating the procedures and practices (alongside the policymaking effort) whereby U.S. institutions participate in international programs, U.S. institutions seek and receive foreign information, and foreign institutions gain access to U.S. information.
- The U.S. Government should draw heavily on the above two efforts in formulating and implementing a comprehensive and well-articulated set of international information policies for the 1980's.
- The program announced on October 31st by President Carter to spur industrial innovation includes an important proposal for the National Technical Information Service to acquire and translate extensive foreign technical literature. This is an important first step in strengthening America's ability to monitor foreign developments and should be supported.

Issue #3: As technology advances, how can the goal of broader information flow be balanced with the rights of private corporations and nation-states to control the information they generate?

As technology continues to drive down the cost of information processing, storage, and transmission, the role of information in the economy and in society has been growing. A study prepared for the U.S. Department of Commerce by Mark Porat reported that more U.S. workers are now engaged in information activities than in manufacturing, agriculture, or non-information services. (The Information Economy U.S. Department of Commerce, 1977). As a result, the economic, legal, and technological arrangements surrounding information flow are becoming more important than ever.

One particularly important but little-known consideration is the choice—whether by market forces or by administrative decisions—of technical standards. Often decided without public involvement in such bodies as the International Standards Organization and the International Telecommunications Union (ITU), hardware standards determine which international connections and networks can be made. A recent book by Rhonda Crane, The Politics of International Standards, examines in detail the process by which color television standards were set. This pioneering work describes the political and economic pressures that created three basically incompatible systems, resulting in considerable constraints on the flow of television programming.

Of greater interest to the library and information service community are decisions about computer hardware and data communication standards. Compatibility of computer software and of cataloging systems is also a question of key relevance to future information flow. The International Federation of Library Associations and Institutions has been working to create international standards for machine-readable cataloging. Although work began initially on library needs for international bibliographic information, abstracting and indexing services in specialized areas are gradually being included in a more ambitious effort. It is important that the U.S. libraries and information services support these efforts.

Another important consideration affected by changing technology is the question of copyright and other intellectual property rights. The photostatic copier, the tape recorder, and the computer are affecting the ability of copyright holders to collect royalties for their works.

Fear of unauthorized copying can also keep copyrighted materials out of the computer-based systems that can most easily and rapidly share information internationally.

As online information services grow in importance and as they begin to offer access to documents as well as to titles and abstracts, the question of copyright and neighboring rights will assume greater importance. When a cathode ray terminal displays text, is the text being copied? If so, what sort of payment is due? Does payment entitle the recipient to store the text in memory? What is the copyright status of abstracts based on a copyrighted text? Who owns the copyright to a bibliography generated from a database? Each of these (and other) questions is likely to be answered differently in different countries. Insofar as this occurs, information exchange could be curtailed while legal problems are worked out.

In each of these areas the interests of individual institutions may sometimes conflict with the broad public interest in increasing access, expanding markets, and lowering costs of information. Continuous and detailed scrutiny of developments in these areas by diverse groups in the library and information service community is very important. As a result, the delegates may wish to develop conference resolutions along the following lines:

- Studies of the effect of expected decisions about standardization on U.S. economic and technological interests and on the free flow of information should be commissioned by the U.S. Government.
- International copyright problems--as they stand today and as they may unfold in the 1980's--should be investigated in detail.
- Creation of an ongoing mechanism (perhaps a committee comprised of leaders from various segments of the library and information service community) should be encouraged in order to monitor and to assess developments in these areas.

Issue #4: Why should the underlying international imbalance in the ability to create and to disseminate information be reduced?

Although the United States may have differences with Western Europe over transborder data flow and with Eastern Europe over the flow of news, our differences are clearly much greater with the Third World. While Western and Eastern Europe have their own relatively well-developed press, broadcasting, and information industries, the developing countries are much less able to produce their own information. This underlying problem places real limits on the quantity and quality of information that U.S. libraries and information services can obtain from two-thirds of the world's population.

Article 19 of the Universal Declaration of Human Rights, which has often been quoted by U.S. spokesmen in defending "free flow," treats the ability to impart information as a crucial human right. In recent years the United States has become more specific about its commitment to the worldwide realization of this right.

In early 1976, Secretary of State Henry Kissinger announced demonstration of development applications of satellite communications technology and proposed the creation of a worldwide technological information bank. At the 1976 UNESCO general conference, the United States stated that:

The most effective way to reduce the current imbalance is not by inhibiting the communications capacity of some but by increasing the communications capacity of all...We believe that the United States and other nations in which are found highly developed mass media facilities and capabilities should endeavor to make available, through bilateral and multilateral channels, both private and government assistance to other states in helping to develop their mass media.

At the 1978 UNESCO general conference, the United States announced a six-year experimental program to use satellite communications in support of rural development in the Third World. At the U.N. General Assembly in late 1978, the United States participated in a consensus resolution, which:

- affirms the need to establish a new, more just, and more effective world information and communications order, intended to strengthen international peace and

understanding and based on the free circulation and wider and better balanced dissemination of information, and

- approves the efforts being made to establish this new world order, which should reflect in particular the concerns and legitimate aspirations of the developing countries and the views expressed at the 20th session of the general conference of UNESCO.

In addition, there are more pragmatic reasons why the United States should take special measures to ensure that new information technology is applied to the needs of developing countries. Some of the impressive new technologies seem to require major financial resources, technical skills, and organizational capacities for their effective use. Unless special measures are taken, data communication techniques may better serve multinational banks than central banks in the developing countries. Likewise, the techniques of remote satellite sensing of crops may prove more useful to multinational grain companies than to ministries of agriculture. The effect of these technologies could be further deterioration of developing countries' ability to compete in world markets.

With their voting majority in the U.N. agencies, Third World countries may have the power to retard and to regulate the introduction of technology in ways that have scarcely been imagined. The International Telecommunications Union regulates worldwide use of the radio spectrum and thus influences navigation, astronomy, and broadcasting as well as telecommunications. The little-known International Standards Organization makes important decisions that affect computers and other communications technology. As the stalemate in the North-South "dialogue" continues and as the world economy languishes, developing countries can be expected to search for pressure points.

For these reasons, the United States and other developed countries have compelling long-term reasons to spread the benefits of new information technologies so that all countries will feel that they have a stake in their rapid and orderly development. This, in turn, calls for an intensive investigation of the role of information and communication in development. Insofar as they may contribute to development, information and communication may help to reduce the major source of conflict between rich and poor nations. Delegates to the White House Conference might

wish to embody these sentiments in a Conference resolution drawn along the following lines:

- The United States should reaffirm its commitment to assist the developing countries in building information and communications systems to advance human rights, to act in our enlightened political self-interest, and--most importantly--to contribute to global development.

Issue #5: How can the United States help the developing countries meet their information and communication needs?

Clearly, orderly progress in the Third World is in the long-term interest of the United States. Insofar as poverty can be eliminated, global markets can be expanded. Insofar as developing countries can have a greater role in world information flow, the depth of understanding necessary in a pluralistic world can grow. It seems obvious that a heightened Third World ability to generate, disseminate, and utilize information would be a major component in achieving such goals.

Surprisingly, information and communications do not now command a major percentage of development assistance funding by either bilateral or multilateral agencies. This is probably due, in large measure, to the feeling that agriculture, health, population, and nutrition projects contribute more directly to the meeting of basic human needs. Until very recently the U.S. bilateral aid program has not been supporting the development of a communications infrastructure and has confined its training, research, and field projects to supporting agriculture, health, nutrition, population, and education programs.

Still, the developing world is being affected dramatically by the information revolution, although not in terms defined by development planners. Broadcasting has expanded rapidly over the past quarter century to the point where the rural masses often have access to radio and the urban masses to television. On the other hand, the press and the publishing industry have not expanded rapidly. Well over half of humanity probably lacks access to libraries or information services. The absolute number of illiterate persons is still growing, according to UNESCO figures. For these reasons, broadcasting will probably play a greater educational and developmental role (and print will play a lesser role) than was the case in our development.

To make information and communications serve Third World development on a large scale would require a major effort to probe the true information needs of the developing countries. Most existing technologies and techniques were developed in response to conditions and needs in the wealthy countries. Therefore, to think purely in terms of "reducing an imbalance" or of building western-style capacity would probably be an error. Rather, the enterprise would have to depart from the opposite

assumption: that very little is known about the role of information in the process of Third World development.

Mass Media Projects

When the question of the media's contribution arose in the "first development decade" of the 1960s, the focus was largely on mass media applications. In addition, most early development-oriented experience had been in this area, e.g., the Latin American radio schools, the Indian and (later) the African radio farm forums.

Since then, a sizable number of individual mass media projects have been undertaken, which have incorporated and extended the basic lessons learned in these early efforts. Still, insufficient resources (financial, institutional, and human) and insufficient resolve (professional and political) seem to have prevented the mass media from contributing to socioeconomic development efforts in a major way. UNESCO figures suggest that less than 5% of all radio broadcasts in the Third World are aimed at education (formal or informal) or information in direct support of socioeconomic development. Although every broadcasting system properly dedicates much of its programming to news, entertainment, and culture, there still seems to be much room for growth in developmental broadcasting.

Two-way Media

In addition to mass media, questions about the potential contributions of point-to-point technologies such as telephones, telex, and data communication are also being raised. The most dramatic case is the telephone, whose worldwide use has developed largely as a commercial phenomenon.

As in the case of mass media, the expansion of telecommunications systems in the developing countries is proceeding at a rapid rate, although not in the directions which planners concerned with "basic needs" or rural development might wish. However, before the course of investment could be influenced significantly, research demonstrating the utility of telecommunications to projects in agriculture, nutrition, population, and health would have to be on hand. One would have to know whether telephone, two-way radio, or telex could contribute substantially to administration of development projects, remote health consultation and diagnosis, inservice training of field workers, or participation by client populations.

Also important is the question of how data communications over telephone lines may serve development efforts. Initial applications from the developed countries, such as

rudimentary accounting, inventory, and payroll, may be feasible through remote terminals that access a ministry's central computer. Advances in microprocess "chip" technology may make it possible to produce terminals that are cheaper, more rugged, and easier to maintain. Advances in systems and software design might enable planners to construct systems that can be used by personnel in remote locations who do not have extensive training in computing. However, underlying questions about the habits of information seeking and information use in Third World countries remain. These cultural questions—which can only be dealt with through a truly cooperative approach—are more important than the narrow technological questions.

Scientific and
Technical Information
(STI)

A major application of data communications is the provision of STI. Massive research production in the developed countries led to the creation of computerized information systems largely in the 1960's. In the 1970's, a number of international systems have been built (largely within the U.N. and AID) along similar lines to share information on topics related to development. While these advanced systems are useful to information specialists and librarians, they are difficult for the nonspecialist to penetrate.

As a result, other less mechanized forms of information sharing have been developed. Some international services, such as Volunteers in Technical Assistance and the Intermediate Technology Development Group, maintain personnel banks of specialized consultants to provide tailored answers to written information requests. Another model is the specialized information analysis center, such as that funded by Canada's International Development Research Center to cover cassava, coconut, African soils, and irrigation. The new U.S. Institute for Scientific and Technical Cooperation also plans to be active in STI.

A surprising aspect of the many systems and services for STI is their lack of grounding in research on the information needs and habits of key client groups. Equally surprising is the lack of detailed or comprehensive evaluation of STI's reach and impact. While profiles of users and qualitative appraisals of systems have been assembled in several cases, appraisal of the actual contribution of information to the client's work has not been attempted.

Development and use of appropriate research methods to answer both questions would seem to be at the top of the agenda. The costs of operating STI services — whether they are computerized or personalized — are very high. Further, the information needs and use patterns of professionals in developing countries are increasingly perceived as being categorically different from those of the researchers in industrial countries, who have generated most of the information available and who have been the prime users of existing systems and services.

Information and
Communications Policy

Underlying both media applications and the dissemination of STI are basic questions of infrastructure development and, therefore, of national planning and policymaking. The availability, pricing, and control of the basic facilities for electronic information and communication shape the range of possible applications and uses. Still, an article could be written as late as 1974 announcing the incipient "rise of communications policy research."

Initial questions to be raised by policy planners concern the developing country's current situation regarding the control, management, and use of communication resources. Circumstances in developing countries often make it difficult to know precisely which population groups use the postal system, broadcasting, and telecommunications. Even more difficult to assess are how these resources affect development.

Since most investment in communications is public money, such investment should address pressing public problems. There is growing controversy over whether broadcasting and telecommunications have served national development as well as they should have. Since both sectors are continuing their rapid growth, this question is not one of mere historical interest. Development of rural areas, containing most of the population of the Third World, may have been retarded by the failure to extend telecommunications outward from the cities. The ITU, The World Bank, and several governments (including Colombia, Indonesia, and Egypt) are beginning to investigate this question.

The centralized and urbanized nature of radio broadcasting in much of the Third World may also have limited its utility in solving the problems of rural development. The economic dependence of film and television on imported

programming may have limited the utility of those media as tools for national development. Although there have been many assertions about the effect of foreign programming on culture, relevant research needs to be done.

Developing countries lack neutral sources of analytical information about information technologies. Several Non-Aligned Movement documents have noted this and called for the creation of such resources. At present, equipment vendors and western universities (where the individual Third World planners have been trained) seem to be the major providers of information. In specific cases, western consulting firms have been called to help plan major investments. However, there is no impartial institution or mechanism to provide ongoing evaluation, suggestions for adaptation, or specifications for technologies. Such a resource could help developing countries to procure more effectively a wide range of equipment--from audiocassette recorders and small broadcast transmitters to printing presses, satellite ground stations, and computers. In cases where all available equipment is unsatisfactory, such an institution could formulate specifications, aggregate demand, and otherwise encourage the manufacture of more appropriate technology. Such an institution would serve the interests not only of Third World governments but also of private corporations that are interested in serving markets in the developing world.

A broader question of technology assessment is whether it is now possible (or will soon become possible) to invest in information infrastructure in a manner that will benefit not only telecommunications and broadcasting but also publishing, postal services, and data communications. Much has been written about the imminent "convergence of modes" and its effect on the advanced, postindustrial "information societies." In fact, the opportunities presented to the developing countries could be just as great. With little money invested in conventional technology, the developing countries may be able to leapfrog by buying the most up-to-date systems.

On the other hand, the risks and the costs of inappropriate investment of scarce resources are much greater for the developing countries. The prerequisites and the costs for maintenance and repair must be thoroughly investigated. "Hidden" costs of producing programming for broadcast

systems and "software" for computers have too often been overlooked or understated in the past. Further, the organizational requirements for effective use of the capacities of major systems (especially computers) may be high, and cultural attitudes toward information may be difficult to assess and accommodate in system design.

The final policy question concerns the balance between investment in information vis-a-vis other infrastructures. Traditionally, information has followed transportation, electrification, and water supply. Recently it has been asserted that infrastructure development should proceed in a balanced way. In some circumstances, it is argued, telecommunications infrastructure should precede investment in other sectors. As energy costs rise, all possibilities for substituting communications for transportation should be investigated. However, there are no firm answers regarding the extent to which this is really possible in the developing world.

The current development agenda regarding communications and information covers a wide range of topics--from training and institutional building for traditional mass media to basic questions involving new technologies, infrastructure, and policy. In order to address the broad question of the information needs of developing countries, delegates may wish to consider resolutions along the following lines:

- Decisionmakers in charge of U.S. bilateral and multilateral assistance to the Third World should reconsider the importance of information and communications at the dawn of the "information age."
- The U.S. Government should work with private industry to seek means of greater private involvement in developing information and communications capacity in the Third World.
- The Congress should be urged to include in current foreign aid funding for the Institute for Science and Technological Cooperation. This institute has been proposed by the United States at several major meetings, including the U.N. Conference on Science and Technology for Development.

SUMMARY

If such large-scale cooperation can be achieved, the benefits could be truly historic. The much awaited "information age" could provide greatly increased communications capacities to all peoples and nations. In the short run, this could mean increased productivity of information in economic development, education, and social services. Over the longer term, increased diversity in news and cultural expression could evolve at the global level. Increased cooperation in communications could represent a healthy counter-weight to likely competition over increasingly scarce and costly raw materials and energy. Surely, cooperation in the sharing of an expanding resource will be possible if all nations will commit themselves to act in good faith.